

**EDITORIAL: THE UNEVEN GEOGRAPHIES OF THE COVID-19 PANDEMIC**

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After more than two years, chances are that the COVID-19 pandemic will enter a phase of endemicity. The virus with its everchanging variants is very likely to exist for a long time and has spread to populations across the planet. Vaccinations, naturally acquired immunity, virus mutations, in average less invasive policy responses, and a ‘living with COVID-19 attitude’ have contributed to a less disruptive and more routinised everyday life in the pandemic in many parts of the world (with notable exceptions such as China or North Korea).

Due to the holistic character of the discipline of Geography, it is ideally positioned to deal with the extensive effects of pandemics on societies beyond individual grievances (ROSE-REDWOOD et al. 2020). Next to its epidemiological life, the novel coronavirus has also a social life evident in the ‘more-than-viral’ geographies of COVID-19 (CHAN et al. 2020). Real-time detection and forecasting of infection rates has led to significant changes in the global and local organization of national affairs and daily lives leading to the emergence of ‘Covid societies’ (LUPTON 2022). Border closures, lockdowns, social distancing, mask mandates and many more public health measures have had a deep impact on global trade, mobility of people and goods, and livelihoods (ADEY et al. 2021; HESSE & RAFFERTY 2020). Early on, public health measures were questioned in their relation to existing and newly emerging social and spatial inequalities (SPARKE & ANGUELOV 2020). Some heralded the ‘forced break’ by lockdowns as a necessary breakdown before a sweeping ‘building back better’ and as a time for experimenting – e.g. pedestrianization of city spaces, flexibilization of work and remote working. However, it appears that many hopes regarding the transformative power of the caesura were unfounded.

Cynically, those suffering and dying disproportionately from the virus as much as from the uneven effects of public health measures were the ones who were already in a disadvantaged posi-

tion – a phenomenon that could be observed on all scales. On a global level the Global South suffered most as the pandemic led to impoverishment and compromised sustainable development goals. On a national level, mostly those working in insecure and physically challenging jobs were disproportionately affected by the various negative effects of the pandemic, which also include poverty, insecurity of tenure, and exclusion from education, in addition to the adverse health effects. In effect, the pandemic, as well as the response to the pandemic, exacerbated many existing inequalities within local communities as much as between richer and poorer countries and regions.

Highlighting these effects and debating the uneven geographies of pandemic suffering and dying has been an important task for geographers. Early on in the pandemic, a significant number of special issues provided geographical insights into the pandemic (among others, see special issues in *Dialogues in Human Geography*, *Tijdschrift voor Economische en Sociale Geografie*, *Tourism Geographies*, *Eurasian Geography and Economics*, *Mobilities*). After more than two years into the pandemic, it is time now to consolidate these first accounts by complementing them with thorough and empirical research, determining in more detail what the pandemic means for what kinds of inequalities, and investigating how the pandemic and its effects have played out very differently spatially and socially. It is also time now to consider the possible legacies of the pandemic and pandemic responses and ask for lessons learned regarding pandemic responses. While a return to lockdowns and mask mandates is debated but seems unlikely in countries like Germany or the UK, other countries like China are still enforcing a zero-Covid strategy, imposing strict lockdowns as a common public health measure, despite the detrimental effects on local populations and the world economy. While tourism and international flights are nearing pre-pandemic levels in many parts of the world, the

inequality regarding who has access to this mobility has once again increased, with flights being more expensive and vaccination certificates mandatory.

There cannot be definite answers on the long-term effects of the pandemic as of yet. However, certain dynamics and trends can already be observed. What is clear so far is that the pandemic has affected societal processes at different scales – from the local to the global – and that these effects intersect with several other crises currently disrupting existing orders (SULTANA 2021). Further, it is important to acknowledge that the pandemic will have long-lasting and cascading effects, which will become visible in the years to come. Indirect effects like the expected rise in the number of tuberculosis cases – and deaths – due to under-reporting and under-treatment during the pandemic (WHO 2021) will aggravate and deserve further attention beyond the pandemic's 'acute phase'. Research on the consequences of the pandemic thus needs to continue well into the future.

It is the task of this double special issue to shed some light on the uneven geographies produced by the pandemic and by the responses to it and to give a clearer idea of what has and has not changed during the pandemic, as well as seeking to understand those transitions.

The articles in this first of two issues contribute insights into the uneven effects of the pandemic on Brazil, South Africa, Serbia, and Germany. Topics range from different local vulnerabilities and social upheaval to attitudes towards travel, organizational resilience as well as regional and local planning processes.

SANTOS et al. use an exploratory statistical framework to analyse the uneven effects of the pandemic in Brazilian cities. From their data it is clear that vulnerable cities also had lower survival probabilities. Their research alerts us to highly uneven fatality rates within countries and their cities and regions, depending on social inequalities and different regional public health policies - with Brazil being a stark example of that.

HAFERBURG et al. provide a critical account of the pandemic in the South African province of Gauteng with its capital Johannesburg. To the authors, social unrest in the face of authoritative public health measures is an indicator for taking the socio-spatial context within which pandemics transpire more seriously and to refrain from a solely space-based public health approach reminiscent of older colonial ruling strategies.

ZELJKOVIĆ assesses the attitudes of Serbian residents towards travel during the pandemic. The paper

highlights differences between rural and urban dwellers. While people living in rural areas travel far less, they are generally less concerned about travel during pandemic times. Vice versa, urban residents travel far more but are also more likely to comply with pandemic public health measures and be more concerned about the epidemiological effects of travelling.

VERFÜRTH et al. examine the German bar and restaurant industry which was hit hard by the pandemic and public health measures such as lockdowns. Working from the vantage point of organizational resilience, they find that those already struggling economically before the pandemic were more likely to fail during the pandemic. Interestingly, different rates of failed and surviving businesses appear to be spatially patterned, with bars and restaurants in peripheral places faring far better than those in urban centres.

MAXIMILIAN HABE and NADINE SCHARFENORT have looked into the effects of the pandemic on work relationships and networks in the context of an inter-municipal planning project in two model communities in Germany. They elaborate how informal, trust-based communication kept the planning process alive, but due to dissimilar conditions, affected both model communities differently.

Geography, in our understanding, is at the forefront of providing insights into changing relationships of spatial unevenness but also the entanglements of humans, the environment and technologies, including relationships between humans and nonhuman actors such as viruses. While the news media initially favored epidemiological and virological accounts of the pandemic, the social and global effects have shifted the interest towards more integrative perspectives like those that geographers can offer. We hope that the contributions in the two issues of *Erdkunde* will help to foster the understandings of the complex and uneven geographies of the COVID-19 pandemic.

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